

**REMARKS/ARGUMENTS**

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

Initially the undersigned would like to thank Examiners Lazorcik and Griffin for the courtesies extended during a personal interview held with the undersigned and the inventor Frank Filser on October 17, 2007.

At the above noted oral hearing the outstanding final rejection was discussed in detail and the undersigned was greatly aided in formulating an appropriate response thereto.

At the oral hearing it was pointed out by the undersigned that Dr. Frank Filser has received from the World Academy of Ceramics an award for the invention of the instant application. A copy of a press release indicating the foregoing is attached hereto as Exhibit A. In addition to the foregoing the examiners were presented with press releases from Dentsply, the licensee of the process of the present invention attributing double digit sales growth in various quarters of 2006 and 2007 resulting from products produced in accordance with the process of the present invention. These press releases and reports are attached hereto as Exhibit B. In addition to the foregoing, the examiners were shown a video of the process of the present invention as well as product produced therefrom.

As was demonstrated and pointed out at the oral hearing, each blank of pore ceramic material to produce a single artificial tooth substitute is subjected to the same process for production. Accordingly, the enlargement factor ( $f$ ) is calculated for each and every blank. Contrary to the prior art, the process of the present invention is not a "one size fits all" process. The relative densities and achievable relative density for each of the porous

blanks is determined and therefrom the enlargement factor (f). Thus, each artificial tooth substitute produced is exact for the specific blank of material used. Such is not the case with the prior art. The prior art has a "one size fits all" approach as can be seen from the Table on column 5 of the '747 patent. There is no precision in the '747 patent. The process of the '747 patent is different from the process of the present invention as previously discussed and argued. The secondary reference does not cure the deficiencies noted above with regard to the primary reference. Halloran does not teach how to calculate a specific enlargement factor for each and every blank of porous ceramic material processed. In fact Halloran teaches nothing more than what is set forth in the Wohlwend '747 document, that is, ceramics shrink when sintered and this shrinkage should be accounted for. Accordingly, it is submitted that the sum total teaching of the prior art references do not teach the process of the present invention.

To further distinguish the process of the present invention from the teachings of the prior art, independent claims 16, 32 and 33 have been extensively amended. Specifically, claim 16 has been amended to set forth in subparagraph (1) the step of "processing ceramic powder to form a homogeneous blank of porous material. As stated in [0028] of the instant specification "homogeneous blanks are essential for safe and simple production process". In addition to the foregoing, claim 16 has been amended by adding step (10) which sets forth that steps (1) through (9) are repeated for each artificial tooth substitute to be produced. The foregoing limitation is critical to establish that the process of the present invention is carried out for each and every ceramic blank used to produce a specific artificial tooth substitute. The process of the present invention is

not a "one size fits all" as is taught by the prior art. While the foregoing amendments to independent claim 1 add more specificity, the critical feature is the calculation of an enlargement factor in accordance with step (4) of claim 16. There is no teaching or suggestion in any of the prior art references taken alone or in combination to suggest or lead one to specific calculation set forth in step (4) of claim 16. The primary reference to Wohlwend does not teach or suggest the foregoing nor does the letter to Dr. Halloran suggest same. Accordingly, it is earnestly submitted that independent claim 16 patentably defines over the prior art.

Independent claim 13 has been amended in the same manner as claim 16. All the arguments presented above vis-a-vis independent claim 16 are appropriate to independent process claim 33. It is submitted that process claims 32 and 33 is patentable over the prior art.

In light of the foregoing submissions, arguments and claim amendments, it is submitted that the instant application is in condition for allowance and an early indication of same is respectfully requested.

If any additional fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

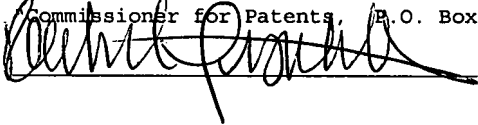
Respectfully submitted,  
Frank Filser et al.


By 

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Date: November 13, 2007

I, Rachel Piscitelli, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on November 13, 2007.





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## Hot News

### Forum of the World Academy of Ceramics (WAC), Faenza/Cesenatico, Italy, May 10-13, 2004

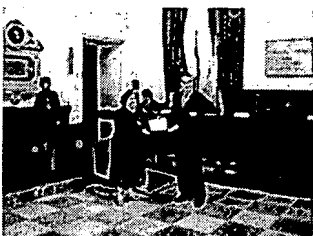


A regular Forum of the World Academy of Ceramics (WAC) was held in Faenza/Cesenatico, Italy on May 10-13, 2004. Its addenda included the awarding ceremony, election of new members, and scientific session.

The Forum opened with a word of greeting by Prof. P. Vincenzini, Chairman of Council WAC. Then Prof. A. G. Merzhanov, President Advisory Board WAC, informed about his activities since his election a President two years ago (renaming the Academy, organization of topical associations).



After the greetings from the mayors of Faenza and Cesenatico, the presentation of newly elected (in 2002) Academy members took place. New WAC members (including Prof. I. Borovinskaya) were awarded with nominal memorial boards. The WAC Prize Laureates'04 Larry L. Hench (UK) and Frank Filser (Switzerland) delivered their laureate lectures (*The Story of Bioglass: From Concept to Clinic* and *Cercon®-smart Ceramics: A New Net-shaping Process for All-ceramic Dental Restorations*, respectively).



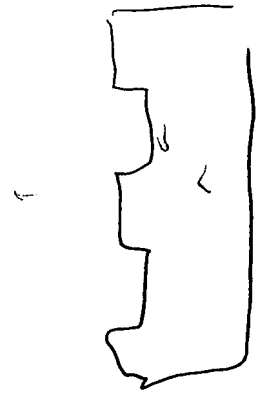
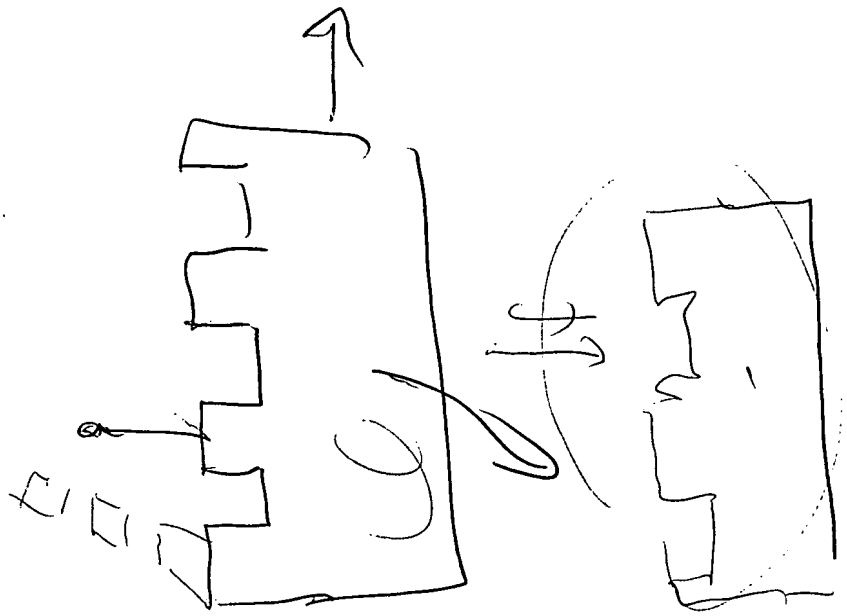
At the Scientific Session, Prof. Merzhanov delivered a lecture *Nanopowders from SHS* in co-authorship with I.P. Borovinskaya and A.E. Sytshev.

Prof. Merzhanov also took part in the session of the Nomination Committee (election of new members), presided the session of the Advisory Board, and had a meeting with the Academy members. At this meeting, Prof. Yu.D. Tret'yakov (Russia) unexpectedly took a sharp position. He noticed that too many (11) American (which is, by the way, indicative of the Academy popularity) and only four Russian nominees have been presented. In the subsequent discussion many constructive proposals were given, such as the restriction in the number of candidates from one country down 3-4 for next elections.



On the whole, the forum was fruitful and well organized.

During the Forum days, Prof. Merzhanov and Dr. Sytshev had a working meeting with Prof. G. Cao, co-chairman of the VII International Symposium on SHS (Sardinia, Italy, 2005).





February 06, 2007 08:05 PM Eastern Daylight Time

**DENTSPLY International Inc. Reports Record Sales and Earnings for Fourth Quarter and Full Year 2006**

YORK, Pa.--(BUSINESS WIRE)--**DENTSPLY International Inc.** (NASDAQ: XRAY) today announced record sales and earnings for the three months and year ended December 31, 2006.

**FINANCIAL RESULTS**

**Three Months Ended December 31, 2006**

Net sales in the fourth quarter of 2006 increased 5.4% to \$471.3 million compared to \$447.4 million reported in the fourth quarter of 2005. Net sales, excluding precious metal content, increased 5.3% in the fourth quarter of 2006. Sales of specialty products, including implants and orthodontic products along with the Company's all-ceramic Cercon products all enjoyed double-digit sales growth in the quarter. Consistent with the Company's statements in September and October, sales decreased in the United States reflecting the short-term effects of the implementation of the U.S. Strategic Partnership Program.

Net income for the fourth quarter of 2006 was \$65.0 million, or \$0.42 per diluted share, compared to a net loss of \$0.7 million in the fourth quarter of 2005. Net income in the fourth quarter of 2006 includes the net of tax impact of both expensing stock options of \$3.6 million (\$0.02 per diluted share) and of restructuring and other related items of \$1.0 million (\$0.01 per diluted share). The fourth quarter of 2006 also includes a net reduction to income tax expense of \$8.8 million (\$0.06 per diluted share) from the resolution of certain tax matters. The fourth quarter of 2005 included an after tax charge of \$67.5 million (\$0.42 per diluted share) for impairment of certain intangible assets and a net reduction of income tax expense of \$5.7 million (\$0.04 per diluted share) related to the resolution of certain tax matters.

On an adjusted basis, earnings, excluding restructuring and other related items and tax adjustments, but including the expensing of stock options in both periods, which constitutes a non-GAAP measure, were \$57.1 million or \$0.37 per diluted share in the fourth quarter of 2006, compared to \$55.7 million or \$0.35 per diluted share in the fourth quarter of 2005. For a reconciliation of this non-GAAP measure to earnings per share calculated according to GAAP, see the attached table.

**Year Ended December 31, 2006**

Sales for all of 2006 increased 5.6% to \$1.81 billion compared to \$1.72 billion in 2005. Sales excluding precious metals increased 5.2% in 2006.

Net income for 2006 was \$223.7 million, or \$1.41 per diluted share. The 2006 earnings included the following items:

1. Net of tax impact of expensing stock options of \$13.3 million (\$0.08 per diluted share).
2. Restructuring and other related expense items of \$7.8 million (\$5.0 million after-tax) or \$0.03 per diluted share.
3. Net reduction of income tax expense of \$4.8 million (\$0.03 per diluted share) related to the resolution of certain tax matters.

Net income for 2005 was \$45.4 million, or \$0.28 per diluted share. The 2005 period includes:

1. Pre-tax impairment and restructuring charges primarily associated with the injectable anesthetic facility and indefinite-lived intangible assets, of \$232.8 million (\$178.9 million after-tax), or \$1.10 per diluted share.
2. Net non-recurring tax benefits related to tax reorganization and repatriation activities of \$8.9 million, or \$0.05 per diluted share.

For comparability analysis, net income including the expensing of stock options in both periods and excluding the other items noted above for the years ending 2006 and 2005, (a non-GAAP measure), were \$224.0 million or \$1.42 per diluted share for 2006 compared to \$201.6 million or \$1.24 per diluted share in 2005, an increase of 14.5% in diluted earnings per share. For a reconciliation of this non-GAAP measure to earnings per share calculated according to GAAP, see the attached table.

**COMMENTS FROM MANAGEMENT**

**2006 Results & 2007 Outlook**

Bret Wise, Chairman and Chief Executive Officer, commented that, "We are pleased that we have delivered earnings performance at the high end of our range of expectations for 2006. During the year, we have made strategic investments in several key initiatives, including implementation of our Strategic Partnership with our U.S. distributors, the expansion of our sales force in key markets, and the January 1, 2007 implementation of the merger of our U.S. endodontic and implant businesses. We believe these initiatives will generate substantial benefits in 2007, and beyond. We remain confident about the opportunities in 2007, and we anticipate earnings in the range of \$1.56 to \$1.61 per diluted share."

**ADDITIONAL INFORMATION**



April 30, 2007 08:30 PM Eastern Daylight Time

**DENTSPLY International Inc. Reports Record First Quarter Sales and Earnings 2007**

YORK, Pa.--(BUSINESS WIRE)--**DENTSPLY International Inc.** (NASDAQ:XRAY) today announced record sales and earnings for the three months ended March 31, 2007.

**FINANCIAL RESULTS**

**Three Months Ended March 31, 2007**

Net sales in the first quarter of 2007 increased 9.7% to \$472.9 million compared to \$431.0 million reported for the first quarter of 2006. Net sales, without precious metal content, increased 10.4% to \$423.3 million in the first quarter of 2007, compared to 2006. Net sales without precious metal content, in the first quarter of 2007, were positively affected by strong internal growth in Europe, improved internal growth in the United States and a stronger Euro. Sales of specialty products, including implants, orthodontic products, along with the Company's all-ceramic Cercon products, all continued to enjoy double-digit sales growth in the quarter.

Net income for the first quarter of 2007 was \$58.5 million, or \$0.38 per diluted share, an increase of 22.6% compared \$0.31 per diluted share in the first quarter of 2006. Net income in the first quarter of 2006 included the net of tax impact of restructuring costs of \$3.1 million (\$0.02 per diluted share). For a reconciliation of this non-GAAP measure to earnings per share calculated according to GAAP, see the attached table.

**COMMENTS FROM MANAGEMENT**

**2007 First Quarter Results & 2007 Full Year Outlook**

Bret Wise, Chairman and Chief Executive Officer, stated "We are pleased to report a strong start for 2007. Our businesses are performing well across most of our product lines and geographies, particularly our specialty products and European business units. These positive trends, along with progress on our key initiatives, give us increased confidence in our outlook for a strong performance in 2007."

**ADDITIONAL INFORMATION**

A conference call has been scheduled for Tuesday, May 1, 2007 at 8:30 AM Eastern Time. A live broadcast is available through Shareholder.com by accessing DENTSPLY's website at [www.dentsply.com](http://www.dentsply.com). The Conference ID # is 1979848. In order to participate in the call, dial **(800) 289-0533** (for domestic calls) and **(913) 981-5525** (for international calls). An on-line rebroadcast, as well as a transcript of the conference call will be available to the public following the conference call at the DENTSPLY website: [www.dentsply.com](http://www.dentsply.com). A replay will be available for one week following the conference call at **(888) 203-1112** (for domestic calls) and **(719) 457-0820** (for international calls), Pass-code #1979848.

DENTSPLY designs, develops, manufactures and markets a broad range of products for the dental market. The Company believes that it is the world's leading manufacturer and distributor of dental prosthetics, precious metal dental alloys, dental ceramics, endodontic instruments and materials, prophylaxis paste, dental sealants, ultrasonic scalers, and crown and bridge materials; the leading United States manufacturer and distributor of dental handpieces, dental x-ray film holders, film mounts and bone substitute/grafting materials; and a leading worldwide manufacturer or distributor of dental injectable anesthetics, impression materials, orthodontic appliances, dental cutting instruments and dental implants. The Company distributes its dental products in over 120 countries under some of the most well-established brand names in the industry.

DENTSPLY is committed to the development of innovative, high quality, cost-effective new products for the dental market.

This press release contains forward-looking information (within the meaning of the Private Securities Litigation Reform Act of 1995) regarding future events or the future financial performance of the Company that involve substantial risks and uncertainties. Actual events or results may differ materially from those in the projections or other forward-looking information set forth herein as a result of certain risk factors. These risk factors include, without limitation; the continued strength of dental markets, the timing, success and market reception for our new and existing products, uncertainty with respect to governmental actions with respect to dental products, outcome of litigation, continued support of our products by influential dental professionals, and changes in the general economic environment that could affect our business. Changes in such assumptions or factors could produce significantly different results.

For an additional description of risk factors, please refer to the Company's Annual Report on Form 10-K and its subsequent periodic reports on Form 10-Qs filed with the Securities and Exchange Commission.

**Non-GAAP Financial Measures**

DENTSPLY believes that the non-GAAP financial information provided in this release may be useful to investors for comparison purposes because the Company has historically provided similar information. The non-GAAP financial information should not be considered in isolation from, or as a substitute for, measures of financial performance prepared in accordance with GAAP.

**DENTSPLY INTERNATIONAL INC.  
CONSOLIDATED STATEMENTS OF INCOME  
(IN THOUSANDS EXCEPT PER SHARE DATA)**





July 31, 2007 08:00 PM Eastern Daylight Time

**DENTSPLY International Inc. Reports Record Second Quarter 2007 Sales and Earnings**

YORK, Pa.--(BUSINESS WIRE)--**DENTSPLY International Inc.** (NASDAQ:XRAY) today announced record sales and earnings for the three months ended June 30, 2007.

**FINANCIAL RESULTS**

**Three Months Ended June 30, 2007**

Net sales in the second quarter of 2007 increased 7.4% to \$507.4 million compared to \$472.4 million reported for the second quarter of 2006. Net sales, without precious metal content, increased 9.1% to \$462.1 million in the second quarter of 2007, compared to \$423.5 million in 2006. Net sales without precious metal content, in the second quarter of 2007, benefited from strong international sales, and the strength of international currencies, especially the Euro and the Swiss Franc. Sales of specialty products, including implants, endodontic and orthodontic products, continued to enjoy robust sales growth in the quarter, while global sales of lab products improved, with continued strong demand for the Company's all-ceramic Cercon products.

Net income for the second quarter of 2007 was \$65.4 million, or \$0.42 per diluted share, an increase of 13.5% compared to \$0.37 per diluted share in the second quarter of 2006. Net income in the second quarter of 2007 included the net of tax impact of restructuring and other costs of \$2.0 million (\$0.01 per diluted share), and a net charge for income tax-related adjustments of \$0.6 million (\$0.01 per diluted share). The second quarter of 2006 included the net of tax impact of restructuring costs of \$1.6 million (\$0.01 per diluted share), and a net charge to income tax expense of \$0.8 million (\$0.01 per diluted share).

Earnings on a non-GAAP basis, (excluding restructuring and other costs, and income tax-related adjustments), were \$68.0 million or \$0.44 per diluted share in the second quarter of 2007 compared to \$61.7 million or \$0.39 per diluted share in the second quarter of 2006. This represents a 12.8% increase in earnings per diluted share on an adjusted non-GAAP basis. For a reconciliation of GAAP and non-GAAP measures, see the attached table.

**COMMENTS FROM MANAGEMENT**

**2007 Second Quarter Results & 2007 Full Year Outlook**

Bret Wise, Chairman and Chief Executive Officer, stated "The investments we are making in sales and marketing, and the excitement surrounding our new products continue to create opportunities for our businesses. We are especially pleased with the performance of our specialty products businesses, where we are experiencing strong double digit internal growth rates in implants, endodontics and orthodontics."

Mr. Wise also commented that, "During the quarter we continued to make progress on our strategic initiatives. Late in the quarter we completed three small acquisitions in diagnostics, implant sales and marketing, and endodontic materials. In addition, early in the third quarter, we closed the acquisition of Sultan Healthcare, which provides an entrance into the important and growing field of infection control, as well as expanding our product mix in preventive and restorative dental products."

Mr. Wise went on to state, "The continued momentum we see across our business strengthens our confidence in delivering strong and improved results in 2007. We are increasing our full year internal sales growth guidance for 2007 to 6-7%, and also increasing our earnings guidance from \$1.56 - \$1.61 given at the beginning of the year to \$1.60 - \$1.64 per diluted share, excluding income tax-related adjustments and restructuring and other costs."

**ADDITIONAL INFORMATION**

A conference call has been scheduled for Wednesday, August 1, 2007 at 8:30 AM Eastern Time. A live broadcast is available through Shareholder.com by accessing DENTSPLY's website at [www.dentsply.com](http://www.dentsply.com). The Conference ID # is 8154661. In order to participate in the call, dial **(800) 289-0529** (for domestic calls) and

**(913) 981-5523** (for international calls). An on-line rebroadcast, as well as a transcript of the conference call will be available to the public following the conference call at the DENTSPLY website: [www.dentsply.com](http://www.dentsply.com). The replay will be available for one week following the conference call at **(888) 203-1112** (for domestic calls) and **(719) 457-0820** (for international calls), Passcode # 8154661.

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DENTSPLY is committed to the development of innovative, high quality, cost-effective new products for the dental market.

This press release contains forward-looking information (within the meaning of the Private Securities Litigation Reform Act of 1995) regarding future events or the future financial performance of the Company that involve substantial risks and uncertainties. Actual events or results may differ materially from those in the projections or other forward-looking information set forth herein as a result of certain risk factors.